Why study engineering design at Bristol?

If you have broad engineering interests, are ambitious, and would like to work on large engineering projects vital to modern society in areas such as renewable energy, sustainable cities and transport, then engineering design could be for you.

The Engineering Design course at Bristol has been specifically developed to educate and train students for future leadership roles in industry. This unique, accredited, five-year interdisciplinary degree was created with the Royal Academy of Engineering and is supported by a partnership of leading companies in a wide range of engineering sectors such as energy, the built environment, transport, manufacturing and product design. These companies help select our students, guide the curriculum and provide placements and projects. As a result, graduates of the course are highly attractive to our partner companies and have a head start in their careers.

This degree teaches you the fundamentals of all the main engineering disciplines; you can then specialise to develop expertise in a particular field. The placements in industry will help you understand the sort of engineering you would like to do and provide valuable real-world work experience. Large-scale engineering projects involve teams of engineers and this degree is aimed at developing engineering leaders; you will learn team working skills, how to deliver effective presentations and how to understand the impact of socioeconomic, environmental and legal constraints on engineering projects.

Our continuing investment in facilities forms part of the exceptional student experience at Bristol. The Engineering Growth Project is a £14 million investment that will equip the Faculty of Engineering well into the 21st century. From autumn 2017 this major expansion of our facilities will include state-of-the-art equipment and large, flexible teaching, design, study and workshops spaces, enabling interactive teaching and learning for our students. Our new atrium will act as a social learning and meeting place and there are future plans for a new cafe and bookable project and study rooms.

‘The links with industry are what really set this course apart. Partnerships with industry-leading companies give you a skill set that enhances your employability. My placements with Atkins and GKN involved design, process engineering, project management and business development projects. I’ve now started my graduate role at Arup Bristol and I’m glad to still be a part of such an exciting city.’

Sinead Lynch (MEng Engineering Design, 2014) Water and Site Development Engineer, ARUP

This leaflet contains information for students planning to start university in autumn 2018. We have made every effort to ensure all details are correct at the time of going to press (June 2017). However, since this information is subject to change, you are advised to check the University’s website, bristol.ac.uk/ug-study, for the latest updates.
The multidisciplinary MEng Engineering Design with Study in Industry provides a common core of engineering units in materials, structures, dynamics, fluids, computing, mathematics and electronics, taken alongside other engineering undergraduates.

In the first year there is also dedicated teaching in design concepts and using computer-aided design software. During your second year, these skills are enhanced through detailed group design projects, and you will choose one of three pathways, aligned with aerospace, civil and mechanical engineering.

The third year is a paid placement in industry, which also forms an assessed part of the course and is closely monitored by both an industrial supervisor and university staff. This ensures that the placement is effective in developing your skills and allows you to take the first steps towards becoming a chartered engineer. You will work alongside graduates, doing the same sort of work as them and learning as you go. Returning to the University for years four and five, you will have a clearer idea about what sort of engineer you want to become, and will be able to tailor your studies by selecting from a wide range of optional units.

Research within the Faculty of Engineering is outstanding and specialises in the following forward-looking subject areas:

- advanced composite materials
- earthquake and geotechnical engineering
- robotics
- smart structures
- complexity science and intelligent systems
- electrical energy management
- water and environmental engineering
- engineering systems and design.

In years four and five you will typically choose sets of optional units. This allows you to develop expertise in areas such as: materials; aeronautics; avionics; dynamics and control; mechatronics; thermofluids; energy; built environment; water engineering.

To develop teamwork skills, you will be involved in group design projects working on real engineering problems, starting in year two. After working within professional engineering teams during your third-year industrial placement, you will conduct major group research and design projects during years four and five. These address genuine business interests provided by our industrial partners and are conducted in collaboration with engineers from these companies. Recent examples have included an electric vehicle system for Bristol, a long-range airship for transporting freight, an automated assembly facility for aircraft components, and a tidal lagoon energy system for the Severn Estuary.

Teaching and assessment

You will be assigned a personal tutor throughout your degree. Tutor groups meet together every one to two weeks during your first year. Each year group also has a year tutor to monitor and assist the group’s progress.

You will also have a ‘parent’ or mentor (a senior student), who will help you with study skills and getting the most out of university life. While on industrial placements, your industrial supervisor and university staff will make sure you have a valuable set of experiences. As this is a course for leaders, you will be expected to manage and develop your own studies and frequently make presentations to other students and staff. Much of your work will be done in teams, working on design projects and case studies. The relatively small cohort on each year of the course (typically around 30 students) promotes a strong support network among the students and with staff.

As well as the usual range of assessments, such as technical reports, in-class tests, computer-based tests and unseen examination papers, we will assess your skills in multi-disciplinary project management and in the processes of design. Group design projects involving self and peer assessment are used and are assessed through presentations and written work.
Careers and graduate destinations

Approximately two-thirds of our graduates progress directly into engineering and consultancy roles. Some go on to further study or set up their own business; others join management consultancies or companies in a variety of sectors.

This course will provide you with the wide range of engineering, management and entrepreneurial skills, and the knowledge that you will need to be successful in the world of engineering. Many employers want the skill set developed in this degree: numeracy and mathematical modelling, spoken and written communications skills, and a broad understanding of how the engineered world works.

The combination of your placements and your work on projects supported by companies means that you will develop, through first-hand insight, a good understanding of the sort of job you want and the skills which your ideal employer seeks. Many of our students are offered jobs as a result of successful year-three placements, with some receiving company sponsorship for the final years of their degree.

Industrial Liaison Office
The Industrial Liaison Office (ILO) manage the Faculty of Engineering's links with a diverse set of world-class engineering and technology companies and work to ensure that our students engage with industry from the very start of their studies.

As an engineering student at Bristol, you will benefit from an outstanding range of activities designed to enhance your employability. These include our Inside Track lecture series, where industry insiders offer first-hand insight into the engineering industry. Our Industrial Mentoring and internships schemes provide opportunities to gain valuable experience and make important connections, and our regular newsletter highlights further opportunities and industry events. See our website for more information: bristol.ac.uk/engineering/ilo.

Making your application

Typical offer for MEng Engineering Design with Study in Industry*

Visit bristol.ac.uk/ug18-engdesign for other qualifications

A-levels A*AA (contextual AAB†) including A in Mathematics and A in either Physics or Further Maths.

IB Diploma 38 points (34 contextual†) overall with 18 at Higher Level (contextual 17†), including 6,6 at Higher Level in Mathematics and either Physics or Further Mathematics.

English language profile E††

GCSEs Mathematics, English and Science at grade C or above.

†For information about contextual offers, visit bristol.ac.uk/ug-apply/#typical-contextual-offers.

††For details of English language profiles, visit bristol.ac.uk/ug-language-requirements.

Selection UCAS or Common Application.

Deferred entry Welcomed.

*The typical offer is indicative only and the University accepts a wide range of qualifications. The information is correct at the time of printing (June 2017); however, we recommend you check the University’s website for the most up-to-date information: bristol.ac.uk/ug-study.

‘Our internship scheme continues to attract support from a wide range of technology and engineering companies, allowing these companies to build relationships with our high-calibre students, who will form the engineering workforce of the future.’

Professor Andrew Nix, Dean of the Faculty of Engineering

Our partner companies often offer sponsorship to students after their placements.

Further information
Find out more about engineering design at Bristol: bristol.ac.uk/engineering-design.
Contact us

**Enquiries Team**  
Tel +44 (0)117 394 1649  
Email choosebristol-ug@bristol.ac.uk

If you have any questions about courses, applications or any aspect of being a UK or international student at Bristol please contact the Enquiries Team.

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University guide to the city of Bristol  
bristol.ac.uk/citybristol

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